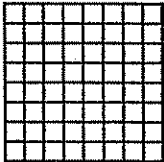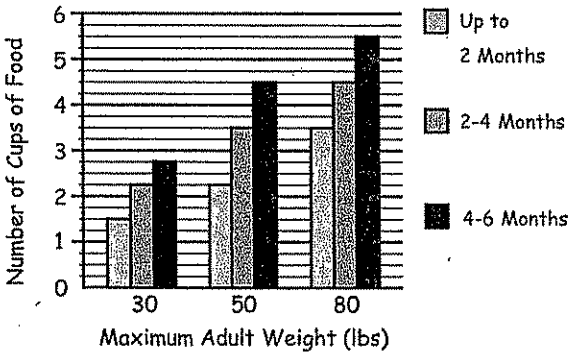# Workout 3

1. _____ miles  The surface of Lake Michigan is 22,300 square miles. If the surface of Lake Michigan were a perfect circular region, what would its circumference be? Express your answer to the nearest ten.

2. $ _____  The six-person Droz family spends $14.27 per person weekly at The Corner Grocers. If The Corner Grocers makes a net profit of 5% of the amounts customers pay, what is the net profit they will make on the Drozes' purchases over a six-week period?

3. _____  Lo has 300 yuan, Maria has 175 euros and Jorge has 500 pesos. If the three of them line up in order of wealth, such that the person holding the greatest value in currency is at the front, in what order will they be standing, front to back?

| Currency | In USD | Per USD |
|---|---|---|
| Chinese Yuan | 0.120 | 8.333 |
| Euro | 1.320 | 0.758 |
| Mexican Peso | 0.090 | 11.111 |

4. $ _____  At the Surf's Up! Restaurant, a 15% tip is automatically added to Jarett's bill because there are more than six people in his party. On his check, the included tip is $27. What is the total cost of the check including the tip?

5. _____ pos  In how many different positions can a 2 by 1 rectangle be placed on the 8 by 8 square board so that the rectangle covers exactly two squares of the square board?

6. _____  If $x < -4.38$, what is the greatest possible integer value of $x$?

7. _____ pounds  A 75-pound bag of feed for livestock contains 30 pounds of bone meal, 30 pounds of limestone and 15 pounds of salt. If Mandelbrot Feed Co. wishes to sell this same mixture in 100-pound bags, how many pounds of salt should be in each bag?

8. _____ lbs  The graph shows the daily amount of food needed to feed a puppy based on the puppy's maximum adult weight. For which maximum adult weight does a puppy have the greatest percent increase of food intake from "Up to 2 Months" to "4-6 Months?"

9. _____ lbs  Water weighs approximately 62.4 lbs/ft³. How much does the water in a full 5' by 3' by 2' tank in the shape of a rectangular prism weigh?

10. _____ %  To get from one corner of a 90' by 90' square plaza to the diagonally opposite corner, what percent shorter is it to walk diagonally across than to walk along two of its sides? Express your answer to the nearest whole percent.